

Remarks

Further and favorable reconsideration is respectfully requested in view of the foregoing amendments and following remarks.

Initially, Applicants' attorney expresses his appreciation for the courtesy of a personal interview granted by the Examiner which was conducted on March 5, 2008, the results of which are summarized in the Interview Summary form of March 18, 2008 and the Substance of Interview filed April 16, 2008.

Claim 1, which is the only independent claim under consideration, has been amended to recite that the powder is dispersed in the slurry, based on the disclosure in the last line on page 10 of the specification. Amended claim 1 further changes the "solidifying" step to recite molding the slurry through a colloid process in a magnetic field of 1T or more to orient the powder, based on the disclosure in the paragraph bridging pages 10-11.

As explained during the interview, the central feature of Applicants' invention was the discovery that the powders used in the present invention, which had previously been thought not to be susceptible to orientation in a magnetic field, could be oriented in a magnetic field under the conditions recited in claim 1. The Topchiashvili et al. reference uses ceramic powders which are susceptible to orientation in a magnetic field. Wei et al. disclose colloidal dispersions of alumina particles, but do not use a magnetic field. But alumina was thought not to be susceptible to orientation in a magnetic field. Applicants' attorney questioned why it would be obvious to use the alumina particles of Wei et al. in the process of Topchiashvili et al. [This is the argument made in the first full paragraph on page 7 of the response of October 31, 2005.] The Examiner first noted that Topchiashvili et al. refer to ceramic particles in general, but Applicants' attorney noted that this reference refers to superconductor ceramic powder, and that alumina is not such a powder. The Examiner appeared to agree, and he then indicated that the better reference is Morita et al., which he characterized as his main reference, as indicated in the Interview Summary form. Applicants' attorney noted that the only mention of a magnetic field in Morita et al. is Example 3, which uses a strontium ferrite powder, which one skilled in the art would expect to be capable of orientation in a magnetic field. Examples 1 and 2, which use alumina powder, do not use a magnetic field, which is consistent with the expectation of one skilled in the art that alumina is not susceptible to orientation in a magnetic field. The Examiner said that since Morita et al. disclose Applicants' ceramic powder and magnetic field, it would be

obvious to “mix and match” from the reference, using alumina with a magnetic field. But Applicants respectfully submit that the reference must be interpreted as it would be by one of ordinary skill in the art, who would not expect that alumina could be oriented in a magnetic field, and therefore would not combine alumina with a magnetic field.

During the interview, Applicants’ attorney referred the Examiner to the table of magnetic susceptibilities attached to their response of October 31, 2005. The Examiner responded that the table shows that the ceramic powders used in the present invention do have some magnetic susceptibility, even though in a small amount, and therefore one skilled in the art would simply “jack up” the power so that the powders could be oriented in a magnetic field. But there is absolutely no motivation in any of the references which would lead one of ordinary skill in the art to do this, especially considering that the powders used in the present invention had previously been thought not to be susceptible to orientation in a magnetic field, as noted above.

Applicants also note that Topchiaschvili et al. form an emulsion mixture, whereas according to amended claim 1 set forth above, the present invention prepares a slurry in which the powder is dispersed. Furthermore, in Topchiaschvili et al., there is no suggestion of applying a magnetic field during the molding step as required in the presently claimed invention.

For these reasons, Applicants take the position that the presently claimed invention is clearly patentable over the applied references.

With regard to the rejection of the claims under 35 U.S.C. §101 and the first paragraph of 35 U.S.C. §112, as Applicants have previously argued, the fact that orientation of the Topchiaschvili et al. ceramic particles in a magnetic field is only possible because these ceramics have magnetic susceptibilities which render them susceptible to magnetic orientation, does not necessarily mean that **Applicants’ ceramics (which are different from the Topchiaschvili et al. ceramics)** cannot be oriented in a magnetic field. Applicants have never argued that the only ceramics which can be oriented in a magnetic field are the Topchiaschvili et al. ceramics. Quite to the contrary, the present invention is effective to orient the ceramics in a magnetic field of 1T or more, even though the magnetic susceptibilities of these ceramics have been previously disregarded by the prior art, because of the parameters in paragraphs (A), (B) and (C) in claim 1, showing the relationship between the solid content of the slurry and the average particle size of the ceramic powder or composite mixture. This is supported by the attachments to Applicants’

Amendment filed July 28, 2006. The Examiner has not disputed the results in these attachments, **which clearly show that orientation of Applicants' ceramics has been achieved.**

With regard to the rejection of claims 1 and 13 under the first paragraph of 35 U.S.C. §112, based on the failure of the claims to include an adjustment step, as Applicants have previously pointed out, if the slurry satisfies parameter (A), (B) or (C) in claim 1, there would be no adjustment step. In order to fall within the scope of claim 1, the slurry must satisfy one of these parameters. These are characteristics of the slurry itself, and satisfaction of these characteristics means that the claimed method does not require an adjustment step to achieve these characteristics. Of course, in preparing a slurry for the purpose of practicing the invention, if the slurry initially did not satisfy one of parameters (A), (B) or (C), then the solid content of the slurry would need to be adjusted to satisfy one of these parameters. But claim 1 does not assume that the initial slurry does not satisfy one of the parameters. If the slurry does satisfy one of the parameters, either as initially prepared or through adjustment of the solid content, then the slurry would be suitable for practicing the claimed method. There is no need for an "adjustment step". Rather, there is only a need for the slurry to satisfy one of parameters (A), (B) or (C).

Therefore, in view of the foregoing amendment and remarks, it is submitted that each of the grounds of rejection set forth by the Examiner has been overcome, and that the application is in condition for allowance. Such allowance is solicited.

Respectfully submitted,

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